Old Orchard Beach Quadrangle, Maine

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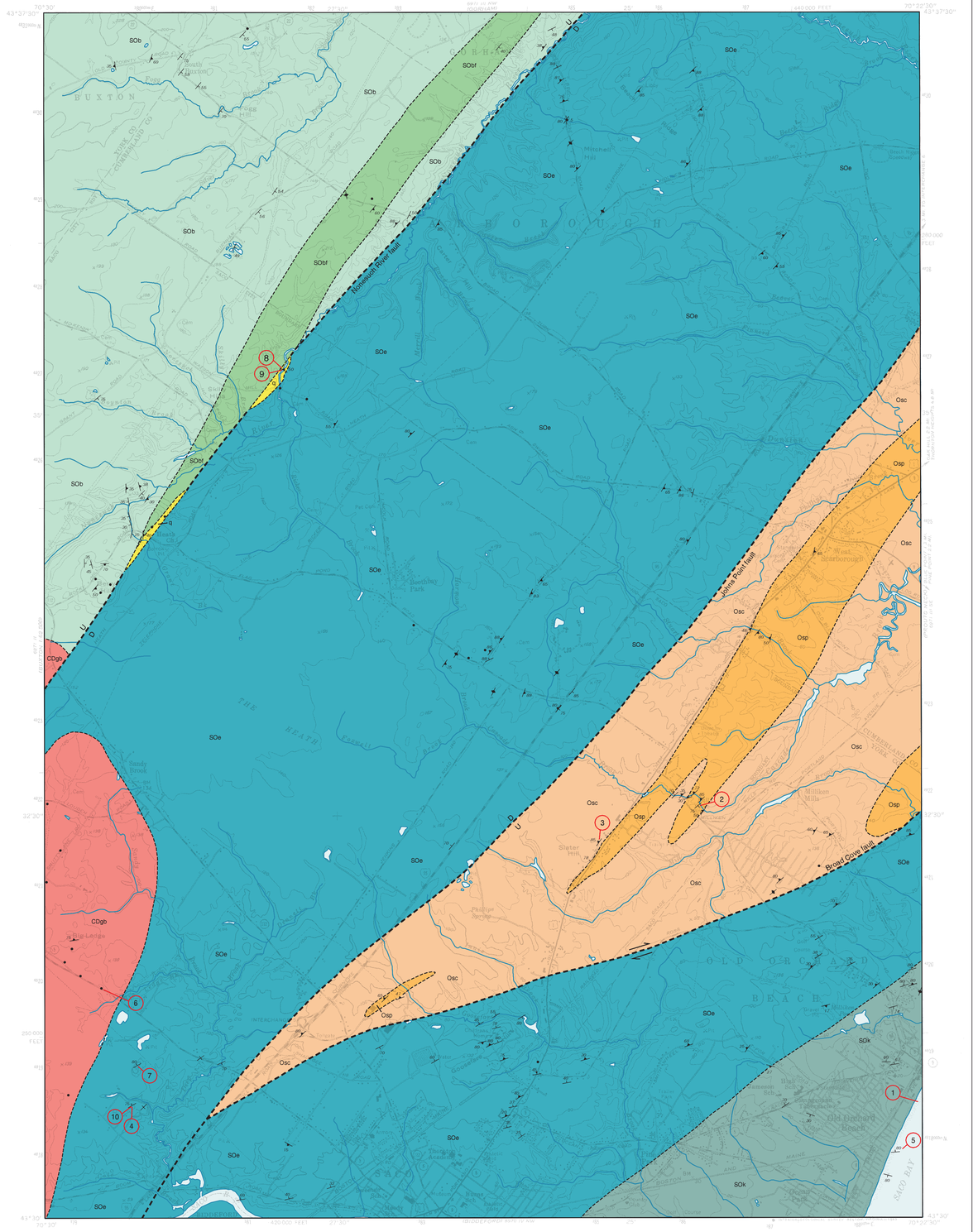
Bedrock Geology



SOURCES OF INFORMATION

Geologic mapping by A. M. Hussey II, 1970 - 2003.

Quadrangle Location

SCALE 1 : 24,000

1 MILE
1000 0 1000 2000 3000 4000 5000 6000 7000 FEET
1 KILOMETER

CONTOUR INTERVAL 20 FEET

TRUE NORTH

Topographic base from U.S. Geological Survey Old Orchard Beach quadrangle, scale 1:24,000 using standard U.S. Geological Survey topographic map symbols.

The use of industry, firm, or local government names on this map is for location purposes only and does not impute responsibility for any present or potential effects on the natural resources.

EXPLANATION OF UNITS

INTRUSIVE ROCKS

q — Silicified zones related to the Nonesuch River fault.

Devonian or Carboniferous

CDgb — **Saco pluton.** Coarse-grained, medium dark gray to slightly greenish-gray metadiorite/gabbro; plagioclase is saussuritized, hornblende and augite altered to fibrous amphibole. Some sections of the pluton are non-foliated; others are extremely foliated and sheared.

STRATIFIED ROCKS

Late Ordovician to Early Silurian

SOb — **Berwick Formation.** Medium-bedded medium gray plagioclase biotite granofels, locally with abundant calcite; interbeds of two-mica garnet schist.

SObf — Light-buff gray fine-grained plagioclase-quartz granofels with essentially no mica; represents either feldspathic metasandstone or metafelsite.

MERRIMACK GROUP

SOk — **Kittery Formation.** Very similar to Eliot Formation but thicker bedded. Buff-weathering beds commonly have relict fine-granule detrital quartz grains.

SOe — **Eliot Formation.** Fine-grained medium gray muscovite-chlorite-quartz-plagioclase phyllite with ankerite and calcite; buff-colored and finely limonite-speckled on weathered surface; interbedded with dark gray crenulated muscovite-chlorite phyllite.

Middle to Late Ordovician

CASCO BAY GROUP

Osc — **Scarboro Formation.** Rusty and non-rusty weathering crenulated muscovite-chlorite-garnet phyllite with rare interbeds of quartz-plagioclase muscovite-chlorite granofels.

Osp — **Spring Point Formation.** Medium greenish gray chlorite-white mica-garnet phyllite; probably representing intermediate metavolcanic ash beds.

EXPLANATION OF SYMBOLS

Strike and dip of bedding. (inclined, vertical)

Strike and dip of bedding, tops known. (upright)

Strike and dip of cleavage, schistosity, or foliation. (inclined, vertical)

④ Photo location

EXPLANATION OF MAP LINES

Stratigraphic or intrusive contact between rock units.

U / D — High angle mostly dip-slip fault (U - upthrown block; D-downthrown block).

High-angle mostly strike-slip fault (arrows indicate sense of motion).

U / D — High angle oblique-slip fault (arrows indicate sense of motion; U - upthrown block; D-downthrown block).

GEOLOGIC TIME SCALE

Geologic Age		Absolute Age*
Cenozoic Era		0-65
Mesozoic Era	Cretaceous Period	65-145
	Jurassic Period	145-200
	Triassic Period	200-253
Paleozoic Era	Permian Period	253-300
	Carboniferous Period	300-360
	Devonian Period	360-418
	Silurian Period	418-443
	Ordovician Period	443-489
	Cambrian Period	489-544
Precambrian time		Older than 544

* In millions of years before present. (Okulitch, A. V., 2002, Échelle des temps géologiques, 2002: Commission géologique du Canada, Dossier Public 3040 (Série nationale des sciences de la Terre, Atlas géologique) - RÉVISION.)